

**REMARKS**

Applicants hereby traverse the outstanding rejections and request reconsideration and withdrawal in light of the remarks contained herein. Claims 1-19 are pending in this application.

**Rejection under 35 U.S.C. §103(a)**

Claims 1-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Toshiaki et al. ('212, hereinafter Toshiaki) in view of official notice.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the second criteria, Applicants assert that the rejection does not satisfy the first and third criteria.

**Improper Motivation**

The Office Action admits that Toshiaki does not teach repairing a group of  $N$  elements of a plurality of elements, wherein  $N$  is greater than 1 and the group of  $N$  elements includes the element. The Office Action attempts to cure this deficiency by relying upon Official Notice, which the Office Action alleges to teach having such an element. The motivation for making the combination was presented as follows:

“it would have obvious ... to design or predetermine the number of repairing memory elements [sic] to any specified number in order to obtain a desired value.”

It is well settled that the fact that references can be combined or modified is not sufficient to establish a *prima facie* case of obviousness, M.P.E.P. § 2143.01. The language of the recited motivation is circular in nature, stating that it is obvious to make the modification because it is obvious to achieve the result. Such language is merely a statement that the reference can be modified and does not state any desirability for making the

modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the modification.

No valid suggestion has been made as to why a combination of Toshiaki and Official Notice is desirable. Therefore, the rejection of claims 1-14 should be withdrawn.

#### Lack of Claimed Limitations

The Office Action admits that Toshiaki does not teach repairing a group of  $N$  elements of a plurality of elements, wherein  $N$  is greater than 1 and the group of  $N$  elements includes the element. The Office Action attempts to cure this deficiency by relying upon Official Notice, which the Office Action alleges to teach having such an element. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Claim 1 defines a method that includes inhibiting subsequent repairing of the group of  $N$  elements. Toshiaki does not disclose at least this limitation. Claim 30 of Toshiaki teaches inhibiting a normal word line from being accessed. However, this is not the same limitation as the claimed limitation. No other section of Toshiaki appears to provide a similar teaching to that of the claimed limitation. Official Notice is not relied upon as providing this element. Thus, the combination of Toshiaki and Official Notice does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 1 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 9 defines a computer program product having means for inhibiting subsequent operations of the means for replacing for elements of the group of  $N$  elements. Toshiaki does not disclose at least this limitation. Claim 30 of Toshiaki teaches inhibiting a normal word line from being accessed. However, this is not the same limitation as the claimed limitation. No other section of Toshiaki appears to provide a similar teaching to that of the claimed limitation. Official Notice is not relied upon as providing this element. Thus, the combination of Toshiaki and Official Notice does not teach all of the claimed limitations.

Therefore, the Applicants respectfully assert that for the above reasons claim 9 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 2-8 and 10-14 depend from base claims 1 and 9, respectively, and thus inherit all limitations of their respective base claims. Each of claims 2-8 and 10-14 sets forth features and limitations not recited by the combination of Toshiaki and Official Notice. Thus, the Applicants respectfully assert that for the above reasons claims 2-8 and 10-14 are patentable over the 35 U.S.C. § 103(a) rejection of record.

#### **Rejection under 35 U.S.C. § 103(a)**

Claims 15-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Maeda ('408) in view of Nagai et al. ('616, hereinafter Nagai).

This rejection, as presented, is confusing. The Office Action states that this rejection is based on Maeda in view of Nagai. However, in the discussion of page 7, the Office Action begins discussing Toshiaki, which is the reference used in the previous rejection. Applicants desire clarification as to the basis of this rejection, i.e. please affirmatively state whether the rejection is based on Maeda in view of Nagai or Maeda in view of Nagai further in view of Toshiaki.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the second criteria, Applicants assert that the rejection does not satisfy the first and third criteria.

#### **Improper Motivation**

The Office Action admits that Maeda does not teach having inhibit circuitry. The Office Action attempts to cure this deficiency by introducing Nagai, which the Office Action alleges to teach having such an element. The motivation for making the combination was presented as follows:

“would have obvious ... to increase the probability of relieving a redundancy cell (see col. 2, lines 40-43).”

It is well settled that the fact that references can be combined or modified is not sufficient to establish a *prima facie* case of obviousness, M.P.E.P. § 2143.01. The stated motivation is nonsensical. Applicants are unsure of the meaning of the phrase “increase the probability of relieving a redundancy cell” as it relates to the teaching of Maeda. Furthermore, Applicants note that Maeda already discloses having redundant cells, for example see column 1, line 31. Thus, the teaching of Nagai is unnecessary. Consequently, the language of the motivation is merely a statement that the reference can be modified, and does not state any desirability for making the modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the modification.

No valid suggestion has been made as to why a combination of Maeda and Nagai is desirable. Therefore, the rejection of claims 15-19 should be withdrawn.

#### Lack of Claimed Limitations

The Office Action admits that Maeda does not teach having inhibit circuitry. The Office Action attempts to cure this deficiency by introducing Nagai, which the Office Action alleges to teach having such an element. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Claim 15 defines a system having inhibit circuitry that prevents the repair logic from subsequently operating on the group of N elements. The Office Action admits that Maeda does not teach this limitation. Nagai also does not teach this limitation. Instead, Nagai teaches a selecting circuit that inhibits the selection of the normal memory area and permits the selection of the redundant memory area, see column 3, lines 10-22. However, this is not the same limitation as the claimed limitation. No other section of Nagai appears to provide a similar teaching to that of the claimed limitation. Thus, the combination of Maeda and Nagai

does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 15 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claim 15 also includes repair logic that repairs a group of N elements of the plurality of memory elements, wherein N is greater than one, and the group of N elements includes the portion. The Office Action does not discuss which of Maeda and Nagai teaches this limitation. Applicants believe that neither Maeda nor Nagai teaches this limitation. Thus, the combination of Maeda and Nagai does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claim 15 is patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 16-19 depend from base claim 15, and thus inherit all limitations of claim 15. Each of claims 16-19 sets forth features and limitations not recited by the combination of Maeda and Nagai. Thus, the Applicants respectfully assert that for the above reasons claims 16-19 are patentable over the 35 U.S.C. § 103(a) rejection of record.

### **Official Notice**

In the rejection of claims 1-14 (and possibly the rejection of claim 15-19 as well), the Office Action states that it is well known to “design and define repairing [sic] group of N (numbers) elements (rows and columns) to a specified number (for example; from N to N++).” Under Rule 37 C.F.R. § 1.104(d)(2), the Examiner is hereby requested to provide and make of record an affidavit setting forth his data as specifically as possible for the assertion. Alternatively, under M.P.E.P. § 2144.03, the Examiner is hereby requested to cite a reference in support of the assertion. Otherwise the rejection of claims 1-14 (and 15-19) should be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

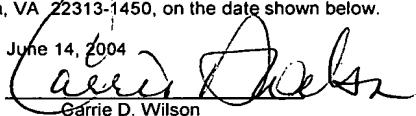
Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10004547-1, from which the undersigned is authorized to draw.

Dated: June 14, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV482734911US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: June 14, 2004

Signature:



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Respectfully submitted,

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